REMARKS

The Office Action dated December 23, 2008 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-36 and 38-45 are now pending in this application. Claims 1-36 and 38-45 stand rejected.

The objection of Claim 28 for allegedly missing a portion of a feature that was added to the other independent claims is respectfully traversed. Claim 28 has been amended to include the omitted portion. Accordingly, Applicants respectfully request withdrawal of the objection to Claim 28.

The rejection of Claims 1-12, 28-32, and 45 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,668,279 to Curtis (hereinafter referred to as "Curtis") in view of U.S. Patent 6,061,603 to Papadopoulos et al. (hereinafter referred to as "Papadopoulos") is respectfully traversed.

Curtis describes a web server (202) that includes an in-kernel cache (204) that is managed by a data transport module (206). The web server (202) receives HTTP requests from multiple clients (100) and (102). The data transport module (206) places an object containing the HTTP request in an upcall thread queue (214). An upcall thread (216) then obtains the HTTP request from the upcall thread queue (214) and invokes a method implemented by the HTTP daemon (210). The HTTP daemon (210) returns an HTTP response and/or directives to control information that is stored in the in-kernel cache (204) or control a flow of information that is transmitted to the clients (100) or (102). This information is sent to the data transport module (206) via a downcall door (220). As acknowledged by the Examiner, Curtis does not describe or suggest using form data from a HTTP request to transfer ACM data to an ACM CPU to control operation of the ACM, wherein the ACM is one of a programmable logic controller, a computer numeric control, and a motion control product. Moreover, Curtis does not describe or suggest using form data

from a HTTP request to transfer ACM data to an ACM CPU without using a backplane to control operation of the ACM.

Papadopoulos describes a process control system (6) that allows a user (2) to access a programmable logic controller (PLC) (32). A web server (30) provides a direct connection for the PLC (32) to the Internet (14) by plugging the web server (30) into a backplane (34). The web server (30) and the PLC (32) are separate components of the process control system (6).

Notably, Papadopoulos does not describe or suggest using form data from a HTTP request to transfer ACM data to an ACM CPU without using a backplane to control operation of the ACM. Rather, Papadopoulos, at column 5, lines 25-33, describes that a TCP/IP network that is coupled to an Ethernet driver of a web server allows special master functions that allow nodes on the network to initiate message transactions, including reading and writing data for commands and responses. The master functions allow programs running on a PLC to send commands to remote nodes on the network and to receive responses from nodes on the network. The commands and responses described in Papadopoulos are sent by the backplane driver to the PLC using the backplane.

Claim 1 recites a web-enabled automation control module (ACM) that includes "an ACM central processing unit (CPU); and a web and file transfer system electrically connected to said ACM CPU, said web and file transfer system embedded within said ACM . . . said web and file transfer system configured to: process hypertext transfer protocol (HTTP) requests from a network; and use form data from the HTTP requests to transfer ACM data to said ACM CPU without using a backplane to control operation of said ACM, wherein said ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product."

No combination of Curtis and Papadopoulos describes or suggests a web-enabled ACM as recited in Claim 1. More specifically, no combination of Curtis and Papadopoulos describes or suggests a web and file transfer system configured to process HTTP requests from a network and use form data from the HTTP request to transfer ACM data to the ACM

CPU without using a backplane to control operation of the ACM. Rather, as acknowledged by the Examiner, Curtis does not describe or suggest using form data from a HTTP request to transfer ACM data to an ACM CPU to control operation of the ACM, wherein the ACM is one of a programmable logic controller, a computer numeric control, and a motion control product, and relies on Papadopoulos as allegedly describing this feature. Applicants respectfully disagree.

Papadopoulos describes a process control system that receives network requests and commands using a web server and sends the requests and commands to the PLC over a backplane using a backplane driver. In contrast, Claim 1 recites a web and file transfer system configured to process HTTP requests from a network and use form data from the HTTP request to transfer ACM data to the ACM CPU without using a backplane to control operation of the ACM.

Claims 2-12 and 45 depend from independent Claim 1. When the recitations of Claims 2-12 and 45 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-12 and 45 likewise are patentable over Curtis in view of Papadopoulos.

Claim 28 recites a method for management and control of an automation control module (ACM) including an ACM central processing unit (CPU), wherein the ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. The method includes "embedding a web and file transfer system within the ACM comprising electrically connecting the web and file transfer system to the ACM CPU . . . electrically connecting the web and file transfer system to a network; processing hypertext transfer protocol (HTTP) requests from the network using the web and file transfer system; and using form data from the HTTP requests to transfer ACM data to the ACM CPU without using a backplane to control operation of the ACM."

No combination of Curtis and Papadopoulos describes or suggests a method for management and control of an ACM as recited in Claim 28. More specifically, no combination of Curtis and Papadopoulos describes or suggests embedding a web and file

transfer system within an ACM, processing HTTP requests from a network using a web and file transfer system, and using form data from the HTTP requests to transfer ACM data to the ACM CPU without using a backplane to control operation of the ACM. Rather, as acknowledged by the Examiner, Curtis does not describe or suggest using form data from a HTTP request to transfer ACM data to an ACM CPU to control operation of the ACM, wherein the ACM is one of a programmable logic controller, a computer numeric control, and a motion control product, and relies on Papadopoulos as allegedly describing this feature. Applicants respectfully disagree.

Papadopoulos describes a process control system that receives network requests and commands using a web server and sends the requests and commands to the PLC over a backplane using a backplane driver. In contrast, Claim 28 recites embedding a web and file transfer system within an ACM, processing HTTP requests from a network using a web and file transfer system, and using form data from the HTTP requests to transfer ACM data to the ACM CPU without using a backplane to control operation of the ACM.

Claims 29-32 depend from independent Claim 28. When the recitations of Claims 29-32 are considered in combination with the recitations of Claim 28, Applicants submit that dependent Claims 29-32 likewise are patentable over Curtis in view of Papadopoulos .

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1-12, 28-32, and 45 be withdrawn.

The rejection of Claims 13-27 and 33-44 under 35 U.S.C. § 103(a) as being unpatentable over Curtis in view of Pettersen (U.S. Patent No. 6,826,594), and further in view of Papadopoulos is respectfully traversed.

Curtis and Papadopoulos are described above. Pettersen describes a method for inserting dynamic content into a web page. A web page owner defines one or more zones of a web page (793) as remotely managed, and then connects the web page (793) to a content serving web site (780) in order to manage the zones by identifying dynamic content to be inserted in the zones. By way of an affiliate browser (792), a user at an affiliated web site

(790) accesses a zone content database (785) to alter a file (787) associated with a tag ID (786) owned by the affiliate. The affiliated web site (790) and the content serving web site (780) each has a web server (791) and (781). In response to a request from a user system browser (762), the content serving web site (780) looks up the file (787) associated with the dynamic content from the dynamic content database (785), using the tag ID (786) as a key, and sends the file (787) to a user system (760). Notably, Pettersen does not remedy the deficiencies of Curtis and Papadopoulos in describing or suggesting using form data from a HTTP request to transfer ACM data to an ACM CPU without using a backplane to control operation of the ACM.

Claim 13 recites an automation control module (ACM) system that includes "an ACM comprising one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product; a network; a web-enabled computer electrically connected to said network; and a web and file transfer subsystem electrically connected to said ACM and said network, said web and file transfer subsystem comprising a web server, a file transfer server, and a database, said web and file transfer subsystem configured to: store at least one user-defined web page file in said database; process hypertext transfer protocol (HTTP) requests from said network; and use form data from the HTTP requests to transfer ACM data to said ACM without using a backplane to control operation of said ACM."

No combination of Curtis, Pettersen, and Papadopoulos describes or suggests an ACM system as recited in Claim 13. More specifically, no combination of Curtis, Pettersen, and Papadopoulos describes or suggests a web and file transfer subsystem configured to store at least one user-defined web page file, process HTTP requests from the network, and use form data from the HTTP requests to transfer ACM data to the ACM without using a backplane to control operation of the ACM. As acknowledged by the Examiner, Curtis does not describe or suggest using form data from a HTTP request to transfer ACM data to an ACM CPU to control operation of the ACM, wherein the ACM is one of a programmable logic controller, a computer numeric control, and a motion control product, and relies on Papadopoulos as allegedly describing this feature. Applicants respectfully disagree.

Papadopoulos describes a process control system that receives network requests and commands using a web server and sends the requests and commands to the PLC over a backplane using a backplane driver. In contrast, Claim 13 recites a web and file transfer subsystem configured to store at least one user-defined web page file, process HTTP requests from the network, and use form data from the HTTP requests to transfer ACM data to the ACM without using a backplane to control operation of the ACM.

Claims 14-27 depend from independent Claim 13. When the recitations of Claims 14-27 are considered in combination with the recitations of Claim 13, Applicants submit that dependent Claims 14-27 likewise are patentable over Curtis in view of Pettersen, and further in view of Papadopoulos .

Claim 28 is recited above.

No combination of Curtis, Pettersen, and Papadopoulos describes or suggests a method for management and control of an ACM as recited in Claim 28. More specifically No combination of Curtis and Papadopoulos describes or suggests embedding a web and file transfer system within an ACM, processing HTTP requests from a network using a web and file transfer system, and using form data from the HTTP requests to transfer ACM data to the ACM CPU without using a backplane to control operation of the ACM. As acknowledged by the Examiner, Curtis does not describe or suggest using form data from a HTTP request to transfer ACM data to an ACM CPU to control operation of the ACM, wherein the ACM is one of a programmable logic controller, a computer numeric control, and a motion control product, and relies on Papadopoulos as allegedly describing this feature. Applicants respectfully disagree.

Papadopoulos describes a process control system that receives network requests and commands using a web server and sends the requests and commands to the PLC over a backplane using a backplane driver. In contrast, Claim 28 recites a web and file transfer system within an ACM, processing HTTP requests from a network using a web and file transfer system, and using form data from the HTTP requests to transfer ACM data to the ACM CPU without using a backplane to control operation of the ACM.

Claims 33-35 depend from independent Claim 28. When the recitations of Claims 33-35 are considered in combination with the recitations of Claim 28, Applicants submit that dependent Claims 33-35 likewise are patentable over Curtis in view of Pettersen and further in view of Papadopoulos.

Claim 36 recites a method for management and control of an automation control module (ACM) using an ACM system. The ACM system includes a network and a web-enabled computer electrically connected to the ACM. The ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. The method includes "embedding a web and file transfer subsystem within the ACM including electrically connecting the web and file transfer subsystem to the ACM and the network, the web and file transfer subsystem comprises a web server, a file transfer server, and a database; storing at least one user-defined web page file in the database; processing hypertext transfer protocol (HTTP) requests from the network; and using form data from the HTTP requests to transfer ACM data to the ACM without using a backplane to control operation of the ACM."

No combination of Curtis, Pettersen, and Papadopoulos describes or suggests a method for management and control of an ACM as recited in Claim 36. More specifically, no combination of Curtis, Pettersen, and Papadopoulos describes or suggests embedding a web and file transfer system within the ACM, storing at least one user-defined web page file in the database, processing HTTP requests from the network, and using form data from the HTTP request to transfer ACM data to the ACM without using a backplane to control operation of the ACM. As acknowledged by the Examiner, Curtis does not describe or suggest using form data from a HTTP request to transfer ACM data to an ACM CPU to control operation of the ACM, wherein the ACM is one of a programmable logic controller, a computer numeric control, and a motion control product, and relies on Papadopoulos as allegedly describing this feature. Applicants respectfully disagree.

Papadopoulos describes a process control system that receives network requests and commands using a web server and sends the requests and commands to the PLC over a backplane using a backplane driver. In contrast, Claim 28 recites embedding a web and file

transfer system within the ACM, storing at least one user-defined web page file in the database, processing HTTP requests from the network, and using form data from the HTTP request to transfer ACM data to the ACM without using a backplane to control operation of the ACM.

Claims 37-44 depend from independent Claim 36. When the recitations of Claims 37-44 are considered in combination with the recitations of Claim 36, Applicants submit that dependent Claims 37-44 likewise are patentable over Curtis in view of Pettersen, and further in view of Papadopoulos.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 13-27 and 33-44 be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action are respectfully solicited.

Respectfully submitted,

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